

WHAT IS CLAIMED IS:

1. An image display device, comprising:

a face plate having a phosphor screen including a light absorption layer and a phosphor layer which are formed in a predetermined pattern on a glass substrate, and a metal back layer formed on the phosphor screen; and

a rear plate having a number of electron emission elements formed on a substrate, and disposed to face the face plate,

wherein the metal back layer includes an electrically divided portion formed in a predetermined pattern, a covering layer containing a component melting or oxidizing a metal material composing the metal back layer and heat resistant fine particles respectively, and having concaves and convexes at a surface resulting from the heat resistant fine particles, is formed in the divided portion, and a getter layer divided by the covering layer is formed on the metal back layer in a film shape.

2. The image display device as set forth in claim 1, wherein the electrically divided portion of the metal back layer is positioned on the light absorption layer.

3. The image display device as set forth in claim 1 or 2, wherein the component melting or oxidizing the metal material composing the metal back layer is an acidic substance with a pH of 5.5 or less or an alkaline substance with a pH of 9 or more.

4. The image display device as set forth in claim 2 or 3, wherein in the light absorption layer, at least a portion positioning at a lower layer of the electrically divided portion of the metal back layer has a surface resistance of  $1 \times 10^5 \Omega/\square$  to  $1 \times 10^{12} \Omega/\square$ .

5. The image display device as set forth in any one of claim

1 to claim 4, wherein an average particle size of the heat resistant fine particle is from 5 nm to 30  $\mu\text{m}$ .

6. The image display device as set forth in any one of claim 1 to claim 5, wherein the heat resistant fine particles are at least one kind of particles of oxide selected from  $\text{SiO}_2$ ,  $\text{TiO}_2$ ,  $\text{Al}_2\text{O}_3$ , and  $\text{Fe}_2\text{O}_3$ .

7. The image display device as set forth in any one of claim 1 to claim 6, wherein the getter layer is a metal layer selected from Ti, Zr, Hf, V, Nb, Ta, W, and Ba, or an alloy layer of which main constituent is at least one kind of metal selected from these metals.

8. A manufacturing method of an image display device, comprising:

forming a phosphor screen in which a light absorption layer and a phosphor layer are arranged in a predetermined pattern at an inner surface of a face plate;

forming a metal back layer by forming a metal film on the phosphor screen;

forming a vacuum envelope including the face plate; and disposing an electron emission source inside of the vacuum envelope to face the phosphor screen,

wherein the manufacturing method of the image display device, includes forming a covering layer containing a component melting or oxidizing the metal film and heat resistant fine particles respectively at a predetermined region on the metal back layer composed of the metal film, and removing or increasing a resistance of the metal film at a portion the covering layer is formed, and forming a getter layer by depositing a getter material from above

the covering layer.

9. The manufacturing method of the image display device as set forth in claim 8, wherein the getter layer in a film shape is formed at a non-forming region of the covering layer on the metal  
5 back layer in forming the getter layer.